

209, B-16 Hostel  
IIT Mandi - 175005  
Himachal Pradesh, India

# Sahil Yadav

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## Education

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Mandi, India	Indian Institute of Technology Mandi	Aug 2015 – Present
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- **Bachelor of Technology in Computer Science and Engineering, GPA: 7.41/10.0**
- **Relevant Coursework:** Data Structures and Algorithms, Operating Systems and Networking, System Architecture, Paradigms of Programming, Algorithm Design and Analysis, Database.
- **Teaching Assistant** for the courses Introduction to Programming, Algorithms and Data Structures, Networking and OS

## Experience

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Google Summer of Code, Developer	GNU Octave	April – Aug 2018
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- Among the selected 3 out of 13, primary task was to incorporate APIs for uploading and publishing an Octave script with all figures generated through it using the user's credentials to Octave's website.
- Enhanced the software for performing CRUD operations on any RESTful web service.
- The project resulted in achieving easy file sharing between the website and software to distribute among the masses. RESTful Services were expanded to be **60% more compatible** with MATLAB, which is a crucial factor while validating any new functionality in the software.

Software Engineering Intern	PocketPills	June – Aug 2018
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- Implemented an **Open Source** textWatcher class for Android with support for API level  $\geq 16$ .
- Wrote **non-blocking** CRUD operations using **Java Ebean** ORM so that cross-platform queries won't need to wait.
- Implemented AWS Simple Email Service Client using Google **Guice DI** which could send out any errors on production or staging environment to the developer(s).
- Accomplished **100%** code coverage using **Mockito** and **Junit** Frameworks.

## Projects

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- **Peer-to-Peer File Sharing Application (in progress):** Design and implement a file sharing application to enable file sharing via the college intranet using network coding and peer-to-peer protocol.
- **Web Conferencing Application:** Implemented a React.js and Node.js based web conferencing app using Agora RTC SDK. Ingrained with a number of features like stream quality management, online media using Cross-Origin Resource Sharing and spam control.
- **High School Portal:** Built a PHP-MySQL powered school management portal from ground up to deployment which aimed at helping the school administration and teachers communicate with students' parents and vice versa along with school reports, timetable, etc.
- **Preventing DoS attacks on Postgres API:** Modified the query parser stage of Postgres API to reject incoming repeated and expensive queries run by the database scheduler.
- **Automatic Junk Processor:** Developed a prototype that processed the input junk material using Arduino based sensors to put into different bins based on its type, i.e, plastic, landfill or metal.

## Languages and Tools

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- (Proficient): C, C++ (Familiar): Python, Java, Node.js, Express.js, React.js, MySQL, PHP
- Others: Git, Mercurial,  $\LaTeX$ , Play MVC, Guice DI, Mockito, IntelliJ IDEA, Linux